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ABSTRACT BOOK

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THE EFFECT OF SUPPORT OF ZINC AND MELATONIN ON LIPID PEROXIDATION OF VARIOUS TISSUES IN RATS WITH BREAST CANCER INDUCED BY DMBA

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The aim of the present was study determine the effect of zinc and melatonin supplementation on lipid peroxidation of various tissues in female rats with breast cancer induced by DMBA. Total 42 Wistar albino female rats were equally separated 5 groups. Group 1 control, Group 2 DMBA control, Group 3 DMBA+ Zinc, Group 4 DMBA + Melatonin, Group 5 DMBA + Zinc + Melatonin. Lung, liver, spleen, pancreas and kidney tissue of rats were examined for MDA and GSH by spectrofotometric. The highest lung, liver, spleen, pancreas and kidney MDA levels were determined in group 2 ($p<0.05$). DMBA + Zn, DMBA + melatonin and DMBA +Zn +melatonin groups have lower MDA levels compared to group 2 ($P<0.05$). Similarly, zinc and melatonin supplemented groups (groups 3,4 and 5) have higher GSH levels were compared to cancer induced group (group 2) ($p<0.05$). The results of present study show that increased damage in lung, liver, spleen, pancreas and kidney tissues are inhibited by zinc/melatonin or zinc + melatonin supplementation. Combine zinc and melatonin supplementation may contribute to preventing of lipid peroxidation in tumoral conditions.

Keywords: DMBA, Breast Cancer, MDA, GSH, Zn, Melatonin

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CEREBRAL ISCHEMIA REPERFUSION INJURY IN RATS: EFFECT OF 3',4'-DIHYDROXYFLAVONOL

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The aim of present study was to determine the effect of 3',4'-dihydroxyflavonol (DiOHF) on experimental brain ischemia-reperfusion in rats. Present study was performed on the 34 male Wistar-albino rats, weighth 350-400 gr. Experiment groups were designed as 1-Sham; 2-Ischemia-reperfusion; 3-DiOHF + Ischemia-reperfusion; DiOHF was given to animals as 10 mg/kg by intraperitoneal. 4- Ischemia + DiOHF + Reperfusion; 5- Ischemia-reperfusion + DiOHF. Cerebral cortex were analysed for malondyaldehyde (MDA), NO (nitric oxide), xanthine oxidase (XO), glutathione (GSH) and glutathione peroxidase (GPx). Tissue MDA levels were significantly higher ischemia-reperfusion groups ($P<0.005$). However, DiOHF inhibited MDA. Ischemia-reperfusion led to increased XO and NO but DiOHF supplementation reduced NO and XO. DiOHF increased GSH and GPx levels compared to ischemia-reperfusion group. Our present study showed that intraperitoneal DiOHF supplementation has protective effect on brain ischaemi-reperfusion injury in rat.

Keywords: Brain Ischaemia-reperfusion, 3',4'-dihydroxyflavonol, free radicals, rat

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